

=> s trichloro glucose fructose
42830 TRICHLORO
437413 GLUCOSE
844 GLUCOSES
437594 GLUCOSE
(GLUCOSE OR GLUCOSES)
66701 FRUCTOSE
97 FRUCTOSES
66715 FRUCTOSE
(FRUCTOSE OR FRUCTOSES)
L24 0 TRICHLORO GLUCOSE FRUCTOSE
(TRICHLORO (W) GLUCOSE (W) FRUCTOSE)

=> d his

(FILE 'HOME' ENTERED AT 15:48:51 ON 21 DEC 2007)

FILE 'HCAPLUS' ENTERED AT 15:49:04 ON 21 DEC 2007

E 6932991/PN 25
E US6932991/PN 25
E US 6932991/PN 25
E US20040005348/PN 25
E VINCENT SEBASTIAN/AU 25
E VINCENT SEBASTIEN/AU 25

L1 2 S (E3)

FILE 'HCAPLUS' ENTERED AT 15:51:33 ON 21 DEC 2007

E US20040235788/PN 25

L2 1 S E3

FILE 'STNGUIDE' ENTERED AT 15:52:20 ON 21 DEC 2007

FILE 'REGISTRY' ENTERED AT 15:53:31 ON 21 DEC 2007

FILE 'REGISTRY' ENTERED AT 15:53:38 ON 21 DEC 2007

L3 11 S 562-68-5 OR 13133-07-8 OR 59432-60-9 OR 9030-17-5 OR 9031-67-

FILE 'HCAPLUS' ENTERED AT 15:53:45 ON 21 DEC 2007

L4 7733 S L3

L5 1 S L4 AND L2

FILE 'STNGUIDE' ENTERED AT 15:54:08 ON 21 DEC 2007

FILE 'REGISTRY' ENTERED AT 15:56:07 ON 21 DEC 2007

L6 7 S 13133-07-8 OR 59432-60-9 OR 9005-80-5 OR 9013-95-0 OR 125692-

FILE 'HCAPLUS' ENTERED AT 15:56:13 ON 21 DEC 2007

L7 6453 S L6

E PREBIOTIC+ALL/CT

L8 4583 S (PREBIOTIC OR "PREBIOTIC" OR "GASTROINTESTINAL AGENTS" (L) "P

L9 284 S L7 AND L8

L10 66 S L9 AND 1800<=PY<=2002

L11 1442 S LEVAN

L12 4 S L11 AND L10

FILE 'STNGUIDE' ENTERED AT 15:57:18 ON 21 DEC 2007

FILE 'STNGUIDE' ENTERED AT 16:02:05 ON 21 DEC 2007

FILE 'STNGUIDE' ENTERED AT 16:18:47 ON 21 DEC 2007

FILE 'HCAPLUS' ENTERED AT 16:23:10 ON 21 DEC 2007

E US6932991/PN 25

L13 E BRANDT M/AU 25
330 S (E3 OR E4 OR E5 OR E6 OR E7 OR E8 OR E9 OR E10 OR E11 OR E12
E CAVADINI C/AU 25
L14 19 S (E3 OR E4 OR E5)
L15 0 S L13 AND L14

FILE 'STNGUIDE' ENTERED AT 16:25:02 ON 21 DEC 2007

FILE 'HCAPLUS' ENTERED AT 16:31:30 ON 21 DEC 2007
L16 15 S GLUCOSE TERMINATED
L17 5 S L16 AND FRUCT?

FILE 'HCAPLUS' ENTERED AT 16:31:57 ON 21 DEC 2007

FILE 'STNGUIDE' ENTERED AT 16:49:16 ON 21 DEC 2007

FILE 'HCAPLUS' ENTERED AT 17:05:34 ON 21 DEC 2007
L18 4555 S L7 AND INULIN
L19 2002 S INULIN/TI
L20 1682 S L19 AND L18
L21 1171 S PREBIOTIC/TI
L22 32 S L21 AND L20
L23 8 S L22 AND 1800<=PY<=2002

FILE 'STNGUIDE' ENTERED AT 17:06:34 ON 21 DEC 2007

FILE 'HCAPLUS' ENTERED AT 17:20:34 ON 21 DEC 2007
L24 0 S TRICHLORO GLUCOSE FRUCTOSE

L23 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:229513 HCAPLUS
DOCUMENT NUMBER: 139:21496
TITLE: The Effect of the Prebiotic Inulin
and the Probiotic Bifidobacterium longum on the Fecal
Microflora of Healthy Volunteers Measured by FISH and
DGGE
AUTHOR(S): Harmsen, Hermie J. M.; Raangs, Gerwin C.; Franks,
Alison H.; Wildeboer, Alida C. M.
CORPORATE SOURCE: Department of Medical Microbiology, University of
Groningen, Groningen, 9700 RB, Neth.
SOURCE: Microbial Ecology in Health and Disease (2002
, 14(4), 211-219
CODEN: MEHDE6; ISSN: 0891-060X
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of pre- and probiotics on the human intestinal microflora was investigated by fluorescent in situ hybridization (FISH) with specific 16S rRNA-targeted oligonucleotide probes, and by denaturing gradient gel electrophoresis (DGGE) of specifically PCR-amplified 16S rRNA genes. The prebiotic inulin was orally administered in the form of Raftiline HP (Orafti, Belgium). Daily doses of 9 g were taken for 14 days by 10 healthy adult volunteers. The probiotic Bifidobacterium longum, encapsulated in gelatin/pectin capsules, was orally administered in the form of Bifina (Morishita Jintan, Japan). Nine capsules were taken each day for 14 days by 14 healthy adult volunteers. For the prebiotic study, FISH probes were used to enumerate all bacteria, bifidobacteria, the Eubacterium rectale-Clostridium coccoides group (Erec group), Bacteroides, and eubacteria of the low G+C group. No significant changes were found in the total population of bacteria, the Bacteroides nor in the low G+C group during the study. The population of bifidobacteria increased significantly, while there was a significant decrease in nos. of the Erec group. The FISH anal. of the probiotic study focused on the enumeration of bifidobacteria only, which did not increase significantly during the study. Samples collected in both studies were analyzed by Bifidobacterium-specific PCR and DGGE. The results showed that a stable bifidobacterial population was present throughout each study. Using both FISH and DGGE, we have shown that for modulation of the bifidobacterial populations in the gut, prebiotics are better candidates than probiotics, since inulin increased bifidobacterial nos. without changing the species composition, while the probiotic had almost no effect.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:963219 HCAPLUS
DOCUMENT NUMBER: 138:122014
TITLE: Antitumorigenic activity of the prebiotic
inulin enriched with oligofructose in
combination with the probiotics Lactobacillus
rhamnosus and Bifidobacterium lactis on
azoxymethane-induced colon carcinogenesis in rats
AUTHOR(S): Femia, Angelo Pietro; Luceri, Cristina; Dolara, Piero;
Giannini, Augusto; Biggeri, Annibale; Salvadori,
Maddalena; Clune, Yvonne; Collins, Kevin J.;
Paglierani, Milena; Caderni, Giovanna
CORPORATE SOURCE: Department of Pharmacology, University of Florence,
Florence, 50139, Italy
SOURCE: Carcinogenesis (2002), 23(11), 1953-1960
CODEN: CRNGDP; ISSN: 0143-3334
PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Prebiotics such as fructans, and probiotics such as Lactobacilli or Bifidobacteria, or a combination of prebiotics and probiotics (synbiotics) are thought to be protective against colon cancer. Therefore, we studied whether the prebiotic inulin enriched with oligofructose (Raftilose-Synergyl.hivin., briefly, Synergyl, 10% of the diet), probiotics [Bifidobacterium lactis (Bb12) and Lactobacillus rhamnosus (LGG), each at 5+108 c.f.u./g diet] or synbiotics (a combination of the two) protect rats against azoxymethane (AOM)-induced colon cancer. Male F344 rats were divided into: Controls; PRE, which were fed a diet containing Synergyl; PRO, fed a diet containing LGG and Bb12; PREPRO, fed a diet containing Synergyl, LGG and BB12. Ten days after beginning the diets, rats were treated with AOM (15 mg/kg s.c. two times); dietary treatments were continued for the entire experiment. Thirty-one weeks after AOM, rats treated with Synergyl (PRE and PREPRO groups) had a significantly lower ($P < 0.001$) number of tumors (adenomas and cancers) than rats without Synergyl (colorectal tumors/rat were 1.9 ± 1.7 , 1.1 ± 1.1 , 2.2 ± 1.4 and 0.9 ± 1.2 in Controls, PRE, PRO and PREPRO groups, resp., means \pm SD). A slight, not significant effect of probiotics in reducing malignant tumors was also observed ($P = 0.079$). Caecal short-chain fatty acids (SCFA) were higher ($P < 0.001$) in the groups treated with Synergyl. Apoptosis was increased in the normal mucosa of the PRO group, while no variation was observed in the tumors. Colonic proliferation was lower in the PRE group as compared with Controls. Glutathione S-transferase placental enzyme pi type expression, and to a lesser extent, inducible NO synthase were depressed in the tumors from rats in the PRE and PREPRO groups. Cyclooxygenase-2 expression was increased in the tumors of control rats but not in those from PRE, PRO or PREPRO rats. In conclusion, prebiotic administration in the diet decreases AOM-induced carcinogenesis in rats.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:484120 HCAPLUS

DOCUMENT NUMBER: 137:184868

TITLE: Prebiotic effects of inulin and oligofructose

AUTHOR(S): Kolida, S.; Tuohy, K.; Gibson, G. R.

CORPORATE SOURCE: Food Microbial Sciences Unit, School of Food Biosciences, University of Reading, Reading, RG6 6AP, UK

SOURCE: British Journal of Nutrition (2002), 87(Suppl. 2), S193-S197

CODEN: BJNUAV; ISSN: 0007-1145

PUBLISHER: CABI Publishing

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Prebiotics are nondigestible food ingredients that target certain components within the microbiota of the human large intestine. Efficient prebiotics need to have an ability to alter fecal microflora composition towards a more beneficial structure. This should occur by the stimulation of benign or potentially health promoting genera, but not of the harmful groups. Because of their pos. attributes, bifidobacteria and lactobacilli are the most frequent target microorganisms. Both inulin and oligofructose are effective prebiotics, as shown in vitro and in vivo in different labs. Because of their recognized prebiotic properties in selective stimulation of colonic bifidobacteria, both inulin and oligofructose are increasingly used in newly developed food products (drinks, yogurts, biscuits, table spreads). Because of the recognized inhibitory effects that bifidobacteria can exert against gut pathogens, one of the most important aspects of prebiotic ingestion is the fortification of gut microflora to resist acute

infections.
 REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:810855 HCAPLUS

DOCUMENT NUMBER: 136:150466

TITLE: A human volunteer study on the prebiotic
 effects of HP-inulin - faecal bacteria
 enumerated using fluorescent in situ hybridisation
 (FISH)

AUTHOR(S): Tuohy, Kieran M.; Finlay, Rochelle K.; Wynne, Anthony
 G.; Gibson, Glenn R.

CORPORATE SOURCE: Food Microbial Sciences Unit, School of Food
 Biosciences, The University of Reading, Reading, RG6
 6AP, UK

SOURCE: Anaerobe (2001), 7(3), 113-118
 CODEN: ANAEF8; ISSN: 1075-9964

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An in vivo study was carried to determine the effect of HP-inulin, a
 high-mol.-weight fraction of chicory-derived inulin, on the human
 gut microflora composition. Ten healthy volunteers were allowed a free-living
 diet whereby they also ingested 8 g/d of maltodextrin for 14 days and this
 was followed by 8 g/d HP-inulin for 14 days. Nine of the ten
 volunteers completed the trial. The trial was conducted in a double blind
 manner and feces were collected periodically such that predominant groups
 of gut bacteria i.e. total bacterial populations, Bacteroides spp.,
 Bifidobacterium spp., Clostridium perfringens/histolyticum sub-group and
 lactobacilli/enterococci could be enumerated. To overcome difficulties
 with culture-based techniques, the bacteria were enumerated using
 fluorescent in situ hybridization (FISH). A small but statistically
 significant increase in bifidobacteria was observed when data from the
 volunteers were pooled. Similarly, a statistically significant increase
 was observed in clostridial nos., although the magnitude of change in this
 bacterial group was about ten times less than that seen with
 bifidobacteria. HP-inulin intake had little or no effect on
 nos. of total bacteria, Bacteroides spp., or lactobacilli and enterococci
 present in the gut microflora of the volunteers. This study has confirmed
 the prebiotic nature of HP-inulin. However, in this trial the
 effects were most marked in those volunteers with low starting levels of
 bifidobacteria-indicating that there may be a relationship between
 prebiotic effect and initial bifidobacterial nos. (c) 2001 Academic
 Press.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:298921 HCAPLUS

DOCUMENT NUMBER: 132:321295

TITLE: Oligofructose and inulin - dietary fiber and
 prebiotic

AUTHOR(S): Feldheim, W.

CORPORATE SOURCE: Austria

SOURCE: Ernaehrung (Vienna) (2000), 24(4), 162-164
 CODEN: ERNRDC; ISSN: 0250-1554

PUBLISHER: Fachzeitschriftenverlagsgesellschaft mbH

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review with 15 refs. is given. Oligofructose and inulin
 belong to the group of fructans, build mainly from fructose units, showing
 relatively low mol. wts. They are plant storage carbohydrates and natural

food ingredients and are both occurring as mixts. of different polymerization degrees. Oligofructose and inulin influence the bowel function and are fermented by the microorganisms of the gut. They are both bifidogenic, during fermentation the formation of short chain fatty acids is noted. As prebiotics with health benefits oligofructose and/or inulin are used as components of functional foods. There is no scientific reason to prefer oligofructose or inulin, both are effective.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:296471 HCAPLUS

DOCUMENT NUMBER: 133:73428

TITLE: Fn-type chicory inulin hydrolysate has a prebiotic effect in humans

AUTHOR(S): Menne, Evelyne; Guggenbuhl, Nicolas; Roberfroid, Marcel

CORPORATE SOURCE: Institut Paul Lambin, Brussels, B1200, Belg.

SOURCE: Journal of Nutrition (2000), 130(5), 1197-1199

CODEN: JONUAI; ISSN: 0022-3166

PUBLISHER: American Society for Nutritional Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The partial enzymic hydrolysis of chicory inulin (GF_n, glucosyl[fructosyl]_{n-1}-fructose, 2 ≤ n ≤ 60) yields an oligofructose preparation that is composed of both GF_n and Fn oligosaccharides (2 ≤ n ≤ 7), where G is glucose, F is fructose, and n is the number of β(2→1) bound fructose moieties. Human studies have shown that feeding the GF_n-type oligosaccharides alters the composition of fecal microflora especially by increasing the bifidobacteria counts. The Fn-type mols. may have the same property. In a controlled feeding study, 5 women and 3 men consumed 8 g Fn-rich product daily for up to 5 wk. Fecal samples were collected and analyzed for total anaerobes, bifidobacteria, lactobacilli, bacteroides, coliforms, and Clostridium perfringens. The oligofructose feeding for 2 and 5 wk led to selective increase in bifidobacteria counts. Daily intake of 8 g Fn-type oligofructose preparation decreased the fecal pH and caused little intestinal discomfort.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:424061 HCAPLUS

DOCUMENT NUMBER: 131:184281

TITLE: Dietary modulation of the human gut microflora using the prebiotics oligofructose and inulin

AUTHOR(S): Gibson, Glenn R.

CORPORATE SOURCE: Department of Food Science and Technology, University of Reading, Earley Gate, Reading, UK

SOURCE: Journal of Nutrition (1999), 129(7S), 1438S-1441S

CODEN: JONUAI; ISSN: 0022-3166

PUBLISHER: American Society for Nutritional Sciences

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 22 refs. Although largely unproven in humans, better resistance to pathogens, decrease in blood lipid levels, antitumor defense, hormonal regulation, and immune stimulation may be possible through gut microflora manipulation. One approach advocates the oral use of live microorganisms (probiotics). The bacterial

survivability/viability after ingestion is difficult to guarantee and almost impossible to prove. The prebiotic concept implies that non-viable dietary components may fortify certain components of the intestinal flora (bifidobacteria, lactobacilli). The survival of the ingested ingredient in the upper gastrointestinal tract is not a prerequisite because it is indigenous bacterial genera that are targeted. Feeding oligofructose and inulin to humans alters the gut flora composition in favor of bifidobacteria, a purportedly beneficial genus. Future human studies using modern mol. biol. detection methods for bacteria will determine the efficacy of prebiotics. It may be possible to influence prophylactically certain gastrointestinal complaints through the selective targeting of gut bacteria.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:254421 HCAPLUS

DOCUMENT NUMBER: 129:53729

TITLE: The influence of Bifidobacterium longum and inulin (Raftiline HP) on colonic neoplastic lesions and gut bacterial metabolism: probiotic, prebiotic and symbiotic effects

AUTHOR(S): Rumney, C.; Coutts, J.; Lievense, L.; Rowland, I.

CORPORATE SOURCE: BIBRA Intl., Surrey, SM5 4DS, UK

SOURCE: Special Publication - Royal Society of Chemistry (1998), 215(Functional Foods), 30-32

CODEN: SROCDO; ISSN: 0260-6291

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The number of biomarkers for colon cancer was decreased in a synergistic manner in rats given Bifidobacterium longum and inulin. The inulin is assumed to provide a carbon/energy source for the B. longum.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:394335 HCAPLUS
DOCUMENT NUMBER: 146:318983
TITLE: Physical-chemical properties and structure elucidation
of AbPS isolated from the root of Achyranthes
bidentata
AUTHOR(S): Chen, Xiaoming; Xu, Yuanjian; Tian, Gengyuan
CORPORATE SOURCE: State Key Laboratory of Bio-organic and Natural
Products Chemistry, Shanghai Institute of Organic
Chemistry, Academia Sinica, Shanghai, 200032, Peop.
Rep. China
SOURCE: Yaoxue Xuebao (2005), 40(1), 32-35
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Yaoxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The physicochem. properties and the structure of Achyranthes bidentata polysaccharide (AbPS) were studied. AbPS was isolated from the roots of Achyranthes bidentata Bl., and purified by gel filtration chromatog. The distribution of the mol. weight of AbPS was determined by ESI-MS. The structure of AbPS was deduced by methylation anal., reductive cleavage, and ¹³C-NMR spectroscopy. AbPS was composed of fructose residues and glucose residues and the molar ratio was 8:1. AbPS contain 2,1-linked fructose residue, 2,1-linked fructose residue, 1,2,6-linked fructose residue, terminal fructose residue, and terminal glucose residue. AbPS is a fructan and belong to graminan.

L17 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1019766 HCAPLUS
DOCUMENT NUMBER: 141:423588
TITLE: Prebiotic compositions comprising fructans
INVENTOR(S): Mobasser, Aliakbar; Hakes, David; Fitzpatrick, Kelly
R.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004235788	A1	20041125	US 2004-817491	20040402
PRIORITY APPLN. INFO.:			US 2003-460754P	P 20030404

AB Fructan compns. for stimulating the growth of bifidogenic bacteria and/or other beneficial bacteria including compns. comprising one or more branched or unbranched levan, compns. comprising one or more branched fructooligosaccharides, and compns. comprising mixts. of fructans of a single type but different d.p. are disclosed. These compns. include compns. comprising short-chain fructans and compns. predominately comprising glucose-terminated fructans and are disclosed as food additives, sweeteners, and bulking agents.

L17 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:315271 HCAPLUS
DOCUMENT NUMBER: 129:4954
TITLE: Synthesis and physical properties of polyurethanes
from saccharide-based polycaprolactones
AUTHOR(S): Hatakeyama, Hyoe; Izuta, Yoshinobu; Kobashigawa, Ken;

CORPORATE SOURCE: Hirose, Shigeo; Hatakeyama, Tatsuko
 SOURCE: Fukui University Technology, Fukui, 910, Japan
 Macromolecular Symposia (1998), 130, 127-138
 CODEN: MSYMEC; ISSN: 1022-1360
 PUBLISHER: Huethig & Wepf Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Polyurethane (PU) sheets were prepared from glucose-, fructose-, and sucrose-based polycaprolactones (PCL). The obtained saccharide-based PCL's were characterized by gel permeation chromatog., Fourier-transform IR spectroscopy, and NMR spectroscopy. The glass transition temperature, thermal degradation temperature, tensile strength, elongation, and Young's modulus of the PU sheets were measured. The obtained results suggest that the mol. motion of PU's is enhanced with increasing fraction of PCL chains in PU mols., and that at the same time the saccharide components act as hard segments.

L17 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:112468 HCAPLUS

DOCUMENT NUMBER: 128:179712

TITLE: Method for preparing polydispersed fructooligosaccharides low in free sugars by partial hydrolysis of fructans as a stiffening agent for foods

INVENTOR(S): De Leenheer, Leen; Booten, Karl

PATENT ASSIGNEE(S): Raffinerie Tirlemontoise, Belg.; De Leenheer, Leen; Booten, Karl

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9805793	A1	19980212	WO 1997-BE87	19970725
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DE, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
BE 1010449	A3	19980804	BE 1996-676	19960801
BR 9711104	A	19990817	BR 1997-11104	19970701
CA 2260135	A1	19980212	CA 1997-2260135	19970725
AU 9736155	A	19980225	AU 1997-36155	19970725
AU 726112	B2	20001102		
EP 917588	A1	19990526	EP 1997-932670-	19970725
EP 917588	B1	20011128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
CN 1226933	A	19990825	CN 1997-196895	19970725
CN 1105780	B	20030416		
JP 2000515745	T	20001128	JP 1998-507401	19970725
AT 209688	T	20011215	AT 1997-932670	19970725
PT 917588	T	20020531	PT 1997-932670	19970725
ES 2168141	T3	20020601	ES 1997-932670	19970725
PL 189325	B1	20050729	PL 1997-331488	19970725
MX 9901152	A	20000331	MX 1999-1152	19990201
US 2001016572	A1	20010823	US 1999-230769	19990201
US 2003186940	A1	20031002	US 2002-317545	20021212
US 7084131	B2	20060801		
PRIORITY APPLN. INFO.:			BE 1996-676	A 19960801

WO 1997-BE87 W 19970725
US 1999-230769 A3 19990201

AB A method of preparing a polydisperse fructooligosaccharide-rich (>93.5%) saccharide with an average d.p. of 7 that is low in glucose, sucrose, and fructose (glucose + sucrose + fructose ≤5%) is described. The fructooligosaccharides have a terminal glucose. The method involves partial hydrolysis of fructanes with an average d. p. of ≥7 and containing glucose, fructose and saccharose in total at most 3.5 % by weight per dry matter. Hydrolysis of chicory inulin with a com. inulinase at 0.6 units of enzyme per g of inulin at pH 5.4 and 65° for 24 h gave rise to a product containing fructotriose 32%, fructotetraose 31% and fructopentaose 10.9%.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1975:528110 HCAPLUS

DOCUMENT NUMBER: 83:128110

ORIGINAL REFERENCE NO.: 83:20115a,20118a

TITLE: Action of *Arthrobacter ureafaciens* inulinase II on several oligofructans and bacterial levans

AUTHOR(S): Uchiyama, Takao

CORPORATE SOURCE: Dep. Biol., Osaka Kyoiku Univ., Osaka, Japan

SOURCE: Biochimica et Biophysica Acta, Enzymology (1975), 397(1), 153-63

CODEN: BBEZAD; ISSN: 0924-1086

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A. *ureafaciens* inulinase II which converts inulin to di-D-fructofuranose 1,2':2,3' dianhydride (difructose anhydride III) leaving a small amount of oligosaccharides, was investigated in order to characterize its mode of action. After the enzymic reaction on the glucose-terminated inulin mols. was completed, the oligosaccharides left in the enzyme digest were isolated and identified as the fructose-glucose oligosaccharides; O-β-D-fructofuranosyl-(2 → 1)-O-β-D-fructofuranosyl α-D-glucopyranoside (1-ketose), O-β-D-fructofuranosyl -[(2 → 1)-O-β-D-fructofuranosyl]2 α-D-glucopyranoside and O-β-D-fructofuranosyl-[(2 → 1)-O-β-D-fructofuranosyl]3 α-D-glucopyranoside. The difructose anhydride formation from the 3 fructose-glucose oligosaccharides in the sep. reaction system with an increased substrate concentration was observed only with the latter 2 substrates. The difructose anhydride formation with several (2 → 1)-β-linked fructose oligosaccharides and bacterial (2 → 6)-β-fructans was examined. The (2 → 1)-β-linked fructose oligosaccharides were effective as substrates for the enzyme with the exception of inulobiose, but the (2 → 6)-β-fructans remained unaffected. It was concluded that the enzyme attacks (2 → 1)-β-linked fructan mols. from the nonreducing fructose ends and requires the presence of at least 2 adjacent (2 → 1)-β-fructofuranosyl linkages.

L12 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:59059 HCAPLUS

DOCUMENT NUMBER: 138:303193

TITLE: Investigating the prebiotic and
gas-generating effects of selected carbohydrates on
the human colonic microflora

AUTHOR(S): Probert, H. M.; Gibson, G. R.

CORPORATE SOURCE: Food Microbial Sciences Unit, School of Food
Biosciences, The University of Reading, Whiteknights,
Reading, UKSOURCE: Letters in Applied Microbiology (2002),
35(6), 473-480

CODEN: LAMIE7; ISSN: 0266-8254

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Aims: To compare the fermentation of dietary carbohydrates with reference to their prebiotic and gas-generating capacity. Methods and Results: Static anaerobic batch culture ferments were carried out measuring gas generation and the prebiotic effect of 5 selected substrates (including various fructo-oligosaccharides, levan and maltodextrin). The largest gas producer was levan, while those showing no significant difference to Actilight included oligofructose and maltodextrin. Gas composition data showed that H₂ and CO₂ were the 2 most quant. important gases. The substrate that appeared to have the best prebiotic effect in vitro was branched chain fructo-oligosaccharide (FOS), followed by oligofructose, Actilight and maltodextrin which each exerted a similar effect. The substrate with the least bifidogenic effect was levan. Conclusions: The composition and total gas generation data showed that there was much variation between and within donor inocula. Generally, the lower gas producers had a more selective fermentation while larger gas producers were less specific. Significance and Impact of the Study: The study of these three parameters enabled a more complete picture of carbohydrate breakdown to be drawn and hence highlighted the need for potential prebiotics to be more extensively evaluated in order to reduce neg. side-effects such as gas distension.

IT 9005-80-5, Inulin 9013-95-0, Levan

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prebiotic and gas-generating effects of selected
carbohydrates on human colonic microflora)

RN 9005-80-5 HCAPLUS

CN Inulin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9013-95-0 HCAPLUS

CN Levan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:11379 HCAPLUS

DOCUMENT NUMBER: 138:152322

TITLE: Fructooligosaccharide and levan producing
activity of Zymomonas mobilis extracellular
levansucraseAUTHOR(S): Bekers, M.; Laukevics, J.; Upite, D.; Kaminska, E.;
Vigants, A.; Viesturs, U.; Pankova, L.; Danilevics, A.CORPORATE SOURCE: Institute of Microbiology and Biotechnology,
University of Latvia, Riga, 1586, Latvia

SOURCE: Process Biochemistry (Oxford, United Kingdom) (

2002), 38(5), 701-706
CODEN: PBCHE5; ISSN: 1359-5113
Elsevier Science Ltd.

PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

Journal
English

AB The present work was devoted to investigations of the fructooligosaccharide (FOS) and levan forming activity of ethanol producing bacteria *Zymomonas mobilis* and their extracellular levansucrase. After cell separation the culture liquid was treated with ethanol to precipitate levan together with extracellular levansucrase. Levan-levansucrase sediment can be used as biocatalyst for fructooligosaccharide (FOS) production in sucrose syrup and levan sediment as soluble fiber source. The dynamics of sucrose conversion and glucose, fructose, and FOS formation by extracellular levansucrase showed that the fructose content increased only during the first 6 h, while the glucose content continued to increase during all 24 h of incubation. The glucose content exceeded the fructose approx. four times. 1-Kestose, 6-kestose, neokestose and nystose, as well as other non identified fructooligosaccharides, was found in fructan syrup. Native or lyophilized *Z. mobilis* biomass added to levan-levansucrase sediment showed small changes in the activity of the biocatalyst. *Z. mobilis* biomass sedimented by ethanol together with levan and used as biocatalyst together with levansucrase did not increase the FOS forming activity of the biocatalyst. The presence of ethanol (7.0%) in sucrose syrup decreased the enzyme FOS forming activity on 24% during the first 24 h of incubation. Fructan syrup obtained from sucrose syrup by levan-levansucrase sediment as biocatalyst had a satisfactory taste, reduced energetic value and can be used as source of prebiotics-fructooligosaccharides and soluble fiber-levan as cholesterol lowering factor.

IT 9013-95-0P, Levan

RL: BMF (Bioindustrial manufacture); FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(fructooligosaccharide and levan producing activity of
Zymomonas mobilis extracellular levansucrase)

RN 9013-95-0 HCAPLUS

CN Levan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 13133-07-8P, Nystose

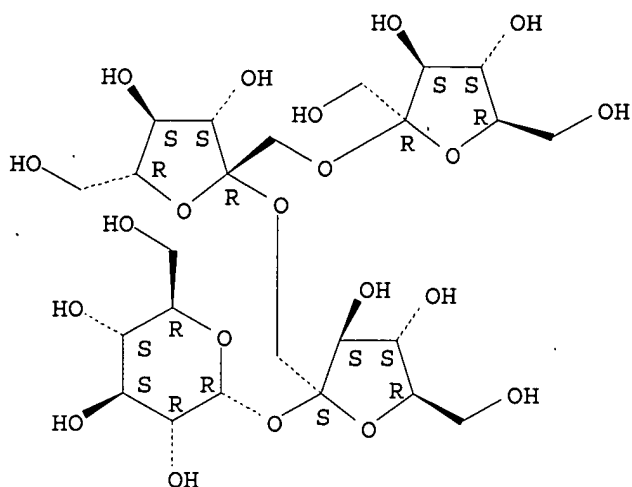
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(fructooligosaccharide and levan producing activity of
Zymomonas mobilis extracellular levansucrase)

RN 13133-07-8 HCAPLUS

CN α -D-Glucopyranoside, O- β -D-fructofuranosyl-(2 \rightarrow 1)-O- β -D-fructofuranosyl-(2 \rightarrow 1)- β -D-fructofuranosyl (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:679152 HCAPLUS

DOCUMENT NUMBER: 136:213331

TITLE: In vitro study of prebiotic properties of levan-type exopolysaccharides from Lactobacilli and non-digestible carbohydrates using denaturing gradient gel electrophoresis

AUTHOR(S): Dal Bello, Fabio; Walter, Jens; Hertel, Christian; Hammes, Walter P.

CORPORATE SOURCE: Institute of Food Technology, University of Hohenheim, Stuttgart, Germany

SOURCE: Systematic and Applied Microbiology (2001), 24(2), 232-237

CODEN: SAMIDF; ISSN: 0723-2020

PUBLISHER: Urban & Fischer Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Batch cultures inoculated with human feces were used to study the prebiotic properties of levan-type exopolysaccharides (EPS) from *Lactobacillus sanfranciscensis* as well as levan, inulin, and fructooligosaccharide (FOS). Denaturing gradient gel electrophoresis of 16S rDNA fragments generated by PCR with universal primers was used to analyze the cultures. Characteristic changes were revealed in the composition of the gut bacteria during fermentation of the carbohydrates. An enrichment of *Bifidobacterium* spp. was found for the EPS and inulin but not for levan and FOS. The bifidogenic effect of the EPS was confirmed by culturing on selective medium. In addition, the use of EPS and FOS resulted in enhanced growth of *Eubacterium biforme* and *Clostridium perfringens*, resp.

IT 9005-80-5, Inulin 9013-95-0, Levan

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(prebiotic levan-type exopolysaccharides from

Lactobacilli and non-digestible carbohydrates studied by denaturing gradient gel electrophoresis)

RN 9005-80-5 HCAPLUS

CN Inulin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9013-95-0 HCAPLUS

CN Levan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:807451 HCAPLUS

DOCUMENT NUMBER: 134:130286

TITLE: Exopolysaccharide production by *Lactobacillus reuteri*,
involving sucrase type of enzymes

AUTHOR(S): van Geel-Schutten, G. H.; van Hijum, S. A. F. T.;
Kralj, S.; Rahaoui, H.; Leer, R. J.; Dijkhuizen, L.

CORPORATE SOURCE: TNO Voeding, Zeist, 3700 AJ, Neth.

SOURCE: Mededelingen - Faculteit Landbouwkundige en Toegepaste
Biologische Wetenschappen (Universiteit Gent) (2000), 65(3a), 197-201

CODEN: MFLBER; ISSN: 1373-7503

PUBLISHER: Universiteit Gent, Faculteit Landbouwkundige en
Toegepaste Biologische Wetenschappen

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 5 refs. Exopolysaccharides (EPSs) find numerous applications in the food as well as in the nonfood industries. They can be used as for instance as viscosifying, thickening, gelling or water binding agents. Furthermore certain EPSs are known to exert health promoting effects such as cholesterol lowering, immunomodulating, antitumoral and prebiotic activities. Using a new method, a large collection of *Lactobacillus* strains was screened on the production of EPS. One of the pos. strains, strain 121, produced two different soluble homopolysaccharides during growth on sucrose, a fructan and a glucan. This strain was identified as *Lactobacillus reuteri*, a probiotic strain and an excellent colonizer of the gastrointestinal tract of a broad variety of hosts, including humans. *L. reuteri* 121 was selected for further research. Structure anal. of the polysaccharides produced by *L. reuteri* 121 revealed that the fructan was a linear levan with $\beta(2-6)$ -linked fructosyl units. This was the first example of fructan synthesis by lactobacilli. The glucan possessed a unique highly branched structure with $\alpha(1-4)$ and $\alpha(1-6)$ linkages with $\alpha(1-4,6)$ branching points. Both polymers were synthesized by sucrase-type of enzymes (glucosyl- and fructosyltransferases). These enzymes only need sucrose as substrate; the energy released by the cleavage of the glycosidic bond in sucrose is subsequently used for the polysaccharide synthesis reaction. During growth of *L. reuteri* on sucrose or maltose, the sucrases responsible for the synthesis of the glucan and the levan appeared to be completely bound to the cell wall, whereas during growth on sucrose part of the enzymes was released into the culture medium. EPS production was not a stable characteristic in continuous cultures. Different spontaneous mutants appeared, such as the EPS-neg. mutant strain K24 which lacks both the glucansucrase (a glucosyltransferase) and the levansucrase (a fructosyltransferase). Mutant 35-5, lacking levansucrase, appeared after a pH shift-down. Using PCR techniques with degenerated primers based on known glucansucrase or fructosyltransferase amino acid sequences, chromosomal fragments containing glucansucrase (gtfA) or fructosyltransferase (ftfA) were amplified. Both fragments were sequenced and characterized at the amino acid level and phylogenetic trees of both types of sucrases were constructed. Both the gtfA and the ftfA were cloned sep. in *Escherichia coli*. Cell free exts. of the *E. coli* strain harboring the ftfA gene produced an inulosucrase, which synthesized inulin and fructose-oligosaccharides from sucrose. The recombinant glucansucrase and the *L. reuteri* glucansucrase synthesized the same unique glucan. These were the first examples of the isolation, characterization, and cloning of *Lactobacillus* glucansucrase and fructosyltransferase genes.

IT 9037-90-5P, Fructan

RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(exopolysaccharide production involving sucrase-type enzymes in Lactobacillus reuteri)

RN 9037-90-5 HCAPLUS

CN D-Fructan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Searched for:: :All of the words:"trichloro glucose fructose"

Found:: :1 total | 0 journal results | 1 preferred web results | 0 other web results

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[Save checked results](#)

[Email checked results](#)

[Export checked results](#)

☐ 1. Prebiotic compositions comprising fructans

Mobasser, Aliakbar / Hakes, David / Fitzpatrick, Kelly R., UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Nov 2004
patno:US20040235788

Fructan compositions for stimulating the growth of bifidogenic bacteria and/or other beneficial bacteria including compositions comprising one or more branched or unbranched levan, compositions comprising one or more branched FOS, and compositions ...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[similar results](#)

Searched for:: :All of the words:**levan** AND (**prebiotic** OR **probiotic**)




Found:: :**41 total** | **12 journal results** | **22 preferred web results** | **7 other web results**

Sort by:: :**relevance** | **date**

Save checked results

Email checked results

Export checked results

- ☐ 1. Production d'exopolysaccharides par fermentation avec des cellules immobilisées de LB. Rhamnosus RW-9595M d'un milieu à base de ...
Bergmaier, Dirk, Nov 2002
...observations lors de ces expériences et ont conduit au dépôt d'un brevet provisoire intitulé "Control and modulation of **probiotic** culture characteristics with immobilized cell technology". Finalement, une conclusion générale intègre les résultats les...
Full text thesis available via NDLTD (Library and Archives Canada)
[similar results](#)
- ☐ 2. FRUCTOSYLTRANSFERASES (INULOSUCRASE AND LEVANSUCRASE) FROM LACTOBACILLUS REUTERI
VAN GEEL-SCHUTTEN, Gerritdina, Hendrika / RAHAOUI, Hakim / DIJKHUIZEN, Lubbert / VAN HIJUM, Sacha, Adrianus, Fokke, Taco (NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-WETENSCHAPPELIJK ONDERZOEK), PATENT COOPERATION TREATY APPLICATION, Nov 2001
patno:WO01090319
...fructosyltransferase synthesizing the **levan**. The complete amino acid sequence...producing an inulin- type and/or a **levan**-type of fructan as described...bioactive carbohydrates or **prebiotics**. The oxidised fructans of...strain capable of producing a **levan**, inulin or fructooligosaccharides or a mixture thereof, as a **probiotic**, is also covered by the invention...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 3. Lipoteichoic acid from lactic acid bacteria and its use to modulate immune responses mediated by gram-negative bacteria, potential pathogenic gram-positive bacteria
Vidal, Karine / Granato, Dominique / Donnet-Hughes, Anne / Corthesy-Theulaz, Irène (SOCIETE DES PRODUITS NESTLE S.A.), EUROPEAN PATENT APPLICATION, Nov 2002
patno:EP1260227
...Selected strains from these genus, termed **probiotics**, have health benefits when administered...Technol 9:321-326). Like commensal LAB, **probiotics** antagonise pathogenic organisms and...composition containing a moiety of a **probiotic** bacterial strain capable of modulating...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 4. LACTOBACILLUS STRAIN PRODUCING LEVAN AND ITS USE IN HUMAN OR PET FOOD PRODUCTS
VINCENT, Sébastien / BRANDT, Markus / CAVADINI, Christoph / HAMMES, Walter P. / NEESER, Jean-Richard / WALDBUESSER, Sabine (SOCIETE DES PRODUITS NESTLE S.A.), PATENT COOPERATION TREATY APPLICATION, Jun 2002
patno:WO02050311
...another embodiment, the **levan** from Lactobacillus...used as a source of **prebiotic** Ductans in human or...comprise as a source of **prebiotic** the **levan** from L. sanfranciscensis...The maximum level of **levan** as **prebiotic** in the pet food is...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)

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similar results

- ☐ 5. Novel fructosyltransferases
Van Hijum, Sacha Adrianus Fokke Taco / Van Geel-Schutten, Gerritdina Hendrika / Dijkhuizen, Lubbert / Rahaoui, Hakim, UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Sep 2002
patno:US20020127681
...which is responsible for the **levan** production during growth on...TEMPO-mediated oxidation, a **levan** according to the invention prepared...0053] For partial oxidation, a **levan** according to the invention...rhamnosus LGG (a well known **probiotic** strain with good adhering properties...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 6. LACTOBACILLUS REUTERI GLUCOSYLTRANSFERASE
VAN GEEL SCHUTTEN, Gerritdina, Hendrika / DIJKHUIZEN, Lubbert / RAHAOUI, Hakim / LEER, Robert, Jan (NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO), PATENT COOPERATION TREATY APPLICATION, Nov 2001
patno:WO0190372
...homopolysaccharides, for instance for **prebiotic** purposes. Several fructo...described above can be used as **prebiotics** and **probiotics** and are also part of the...glucosidic link to be used as **prebiotics**. [00181 The invention also...fructan, which can be either a **levan**, inulin or both. More preferably...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 7. LIPOTEICHOIC ACID FROM LACTIC ACID BACTERIA AND ITS USE TO MODULATE IMMUNE RESPONSES MEDIATED BY GRAM-NEGATIVE BACTERIA, POTENTIAL PATHOGENIC GRAM-POSITIVE BACTERIA
VIDAL, Karine / DONNET-HUGHES, Anne / GRANATO, Dominique-Anne / CORTHESEY-THEULAZ, Irène (SOCIETE DES PRODUITS NESTLE S.A.), PATENT COOPERATION TREATY APPLICATION, Nov 2002
patno:WO02094296
...Selected strains from these genus, termed **probiotics**, have health benefits when administered...Technol 9:321-326). Like commensal LAB, **probiotics** antagonise pathogenic organisms and...composition containing a moiety of a **probiotic** bacterial strain capable of modulating...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 8. ENDOTOXIN BINDING BY LACTIC ACID BACTERIA AND BIFIDOBACTERIA
SCHIFFRIN, Eduardo / KOCIUBINSKI, Guillermo (SOCIETE DES PRODUITS NESTLE S.A.), PATENT COOPERATION TREATY APPLICATION, Aug 2002
patno:WO02062360
...may be used. When extrusion cooked, the dried pet food is usually provided in the form of a kibble. If a **prebiotic** is used, the **prebiotic** may be admixed with the other ingredients of the dried pet food prior to processing. A 5 suitable process...
Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)
- ☐ 9. NUTRITIONAL COMPOSITION WITH HEALTH PROMOTING ACTION CONTAINING OLIGO-SACCHARIDES
VAN LAERE, Katrien, Maria, Jozefa / WISSING, Elmo (N.V. NUTRICIA), PATENT COOPERATION TREATY APPLICATION, Jul 2002

patno:WO02051264

A nutritional composition having beneficial effect in the gastrointestinal tract, especially an anti-adhesion effect on pathogenic micro-organisms and a bifidogenic effect, contains non-digestible oligosaccharides, said oligosaccharides comprising, per ...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **10. Novel glucosyltransferases**

Van Geel-Schutten, Gerritdina Hendrika / Dijkhuizen, Lubbert / Rahaoui, Hakim / Leer, Robert-Jan, UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Oct 2002

patno:US20020155568

...35-5, K24 and DSM20016 and L. rhamnosus LGG (a well known **probiotic** strain with good adhering properties) were cultured in MRS...Lactobacillus reuteri strains producing EPS possess improved **probiotic** characteristics or that Lactobacillus reuteri and its polysaccharides...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **11. Glucan incorporating 4-, 6-, and 4, 6- linked anhydroglucose units**

Van Geel-Schutten, Gerritdina Hendrika / Dijkhuizen, Lubbert / Rahaoui, Hakim / Leer, Robert-Jan (Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek TNO), UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT, Nov 2002

patno:US6486314

...homopolysaccharides, for instance for **prebiotic** purposes. Several fructo- and gluco-oligosaccharides...glucosyltransferase described above can be used as **prebiotics** and **probiotics** and are also part of the invention...one 1,6-glucosidic link to be used as **prebiotics**, for improving the bacterial status...


Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **12. Synergistic composition of a non-digestible carbohydrate and an anti- cancer drug for use in the treatment of cancer**

Taper, Henryk / Frippiat, Anne / Van Loo, Jan / Roberfroid, Marcel (Tiense Suikerraffinaderij N.V. (Raffinerie Tirlemontoise S.A.)), EUROPEAN PATENT APPLICATION, Nov 1999

patno:EP958825

...bifidogenic effect, also called **prebiotic** effect, is known to exert beneficial...enzymes of humans, fructans, **levan**-type fructans as well as inulin-type...By fructan is meant herein a **levan**- type fructan, termed **levan**, as well as an inulin-type fructan...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **13. SYNERGISTIC COMPOSITION OF INULIN AND AN ANTI-CANCER DRUG FOR USE IN THE TREATMENT OF CANCER**

TAPER, Henryk / FRIPPIAT, Anne / VAN LOO, Jan / ROBERFROID, Marcel (Tiense Suikerraffinaderij N.V. (Raffinerie Tirlemontoise S.A.)), EUROPEAN PATENT, Mar 2001

patno:EP1079840

...bifidogenic effect, also called **prebiotic** effect, is known to exert beneficial...ruminating mammals, fructans, **levan**- type fructans as well as inulin-type...drugs. The combined effect of **levan** and four cytotoxic agents on...with all the combinations of **levan** and the cytotoxic agents, except...

Full text available at patent office. For more in-depth searching go to  LexisNexis

[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **14. INHIBITION OF SYSTEMIC INFECTIONS IN HUMANS AND VERTEBRATES BY DIETARY FIBERS**

BUDDINGTON, Randal K. / VAN LOO, Jan / FRIPPIAT, Anne (TIENSE SUIKERRAFFINADERIJ N.V.), *PATENT COOPERATION TREATY APPLICATION*, Apr 2002

patno:W00226242

...said glucose unit is not necessary. **Levan** mostly occurs as branched fructose chains...lesser extent. All said fructans, i.e. **levan**, inulin and oligofructose, are suitable...A second approach is the intake of **probiotics**, which are viable, beneficial bacteria...third approach, involves the intake of **prebiotics**, i.e. dietary fibers, which increases...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **15. CROSSLINKED PROTEIN AND POLYSACCHARIDE BIOFILMS**

LACROIX, Monique / DELMAS-PATTERSON, Genevieve / CANH, Ley, Tien (MATEESCU, M-Alexandru ; LACROIX, Monique ; DELMAS-PATTERSON, Genevieve ; CANH, Ley, Tien), *PATENT COOPERATION TREATY APPLICATION*, May 2001

patno:W001037683

...and extracellular microbial polysaccharides such as pullulan, **levan**, and elsinan (Krochta et al., *Food Technology*, 51:61-74, 1997...with a wax coating. Pullulan films, and coatings of pullulan, **levan**, and elsinan, have been used as oxygen barriers for food and...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **16. COMPOSITIONS OF PLANT CARBOHYDRATES AS DIETARY SUPPLEMENTS**

McANALLEY, Bill H. / McDANIEL, H., Reginald / MOORE, D., Eric / VENNUM, Eileen P. / FIORETTI, William C. (Mannatech, Inc.), *EUROPEAN PATENT*, Jun 1999
patno:EP923382


...carrageenan, dextran, xanthan gum, chondroitin sulfate, sucrose, acetylated polymannose, maltose, glucan, lentinan, mannan, **levan**, hemi-cellulose, inulin, fructan, and lactose. Other embodiments of the invention can comprise phytochemicals or phytonutritionals...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **17. Fructan biosynthetic enzymes**

Allen, Stephen M. / Caimi, Perry G. / Stoop, Johan M., *UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION*, Nov 2002
patno:US20020170086

This invention relates to isolated nucleic acid fragments encoding fructosyltransferases. More specifically, this invention relates to polynucleotides encoding 1-FTTs, 6-SFTs, or 1-SSTs. The invention also relates to the construction of a recombinant DNA ...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **18. SYNERGISTIC COMPOSITION FOR USE IN THE TREATMENT OF CANCER**

TAPER, Henryk / FRIPPIAT, Anne / VAN LOO, Jan / ROBERFROID, Marcel (TIENSE SUIKERRAFFINADERIJ N.V.), *PATENT COOPERATION TREATY APPLICATION*, Nov 1999

patno:WO9959600

...bifidogenic effect, also called **prebiotic** effect, is known to exert beneficial...ruminating mammals, fructans, **levan**-type fructans as well as inulin...drugs. The combined effect of **levan** and four cytotoxic agents on...with all the combinations of **levan** and the cytotoxic agents, except...


Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **19. TRANSGENIC FRUCTAN ACCUMULATING CROPS AND METHODS FOR THEIR PRODUCTION**

CAIMI, Perry Gerard / HERSHEY, Howard Paul / KERR, Phillip S. (E.I. DU PONT DE NEMOURS AND COMPANY), EUROPEAN PATENT, Aug 1996

patno:EP728213

(FIELD OF THE INVENTION) This invention concerns methods for synthesis and accumulation of fructose polymers in transgenic plants by selective expression of bacterial fructosyltransferase genes. (TECHNICAL BACKGROUND) The major reserve carbohydrates found in vascular plants are sucrose, starch

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

☐ **20. COMPOSITIONS OF PLANT CARBOHYDRATES AS DIETARY SUPPLEMENTS**

McANALLEY, Bill H. / McDANIEL, H., Reginald / MOORE, D., Eric / VENNUM, Eileen P. / FIORETTI, William C. (MANNATECH, INC.), PATENT COOPERATION TREATY APPLICATION, Feb 1998

patno:WO9806418

...carrageenan, dextran, xanthan gum, chondroitin sulfate, sucrose, acetylated polymannose, maltose, glucan, lentinan, mannan, **levan**, henni- cellulose, inulin, ftuctan, and lactose. Other embodiments of the invention can comprise phytochernicals or phytonutritionals...

Full text available at patent office. For more in-depth searching go to  LexisNexis
[view all 21 results from Patent Offices](#)
[similar results](#)

Searched for:: :All of the words: **levan** AND (**prebiotic** OR **probiotic**) AND "**glucose terminated**"


Found:: : **4 total** | **0 journal results** | **4 preferred web results** | **0 other web results**


Sort by:: : **relevance** | date


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- ☐ 1. [Prebiotic compositions comprising fructans](#)
Mobasser, Aliakbar / Hakes, David / Fitzpatrick, Kelly R., UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Nov 2004
patno:US20040235788
...branched or unbranched **levan**; one or more branched...predominately comprising **glucose-terminated** fructans (i.e. predominately...terms "inulin" and "**levan**" encompass, in addition...9. [0052] The term "**prebiotic** amount" means an amount...In some embodiments a **prebiotic** amount stimulates the...
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- ☐ 2. [Synergism of GOS and polyfructose](#)
Speelmans, Gelske / Govers, Maria Johanna Adriana Petronella / Knol, Jan / Van Tol, Eric Alexander Franciscus (N.V. Nutricia), EUROPEAN PATENT APPLICATION, Aug 2006
patno:EP1685763
...relief of cramp and pain. The **prebiotic** compositions are therefore...the specific mixtures of **prebiotics** (GOS and polyfructose) by...compositions comprising these **prebiotic** mixtures can also be used...is used herein to refer to **glucose-terminated** fructose chains with the...
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- ☐ 3. [Synergism of GOS and polyfructose](#)
Speelmans, Gelske / Govers, Maria Johanna Adriana Petronella / Knol, Jan / Van Tol, Eric Alexander Fransiscus (Nutricia N.V.), EUROPEAN PATENT APPLICATION, Nov 2005
patno:EP1597978
...relief of cramp and pain. The **prebiotic** compositions are therefore...the specific mixtures of **prebiotics** (GOS and polyfructose) by...compositions comprising these **prebiotic** mixtures can also be used...is used herein to refer to **glucose- terminated** fructose chains with the...
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- ☐ 4. [SYNERGISM OF GOS AND POLYFRUCTOSE](#)
SPEELMANS, Gelske / GOVERS, Mariaa, Johanna, Adriana, Petronella / KNOL, Jan / VAN TOL, Eric, Alexander, Franciscus (N.V. NUTRICIA), PATENT COOPERATION TREATY APPLICATION, Nov 2005
patno:WO05110121
...relief of cramp and pain. The **prebiotic** compositions are therefore...the specific mixtures of **prebiotics** (GOS and polyfructose) by...compositions comprising these **prebiotic** mixtures can also be used...is used herein to refer to **glucose- terminated** fructose chains with the...
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Rastall, R.A. / Maitin, V. , Current Opinion in Biotechnology, 13 (5), p.490-496, Oct 2002
...UK Recent research in the area of **prebiotic** oligosaccharides and synbiotic combinations with **probiotics** is leading towards a more targeted...Recent research in the area of **prebiotic** oligosaccharides and synbiotic combinations with **probiotics** is leading towards a more targeted...exciting prospect is the design of **prebiotics** targeted at specific **probiotics** of proven utility. Such species...
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Bello, F D / Walter, J / Hertel, C / Hammes, W P , Systematic and applied microbiology, 24 (2), p.232-237, Jul 2001
...faeces were used to study the **prebiotic** properties of **levan**-type exopolysaccharides (EPS...Lactobacillus sanfranciscensis as well as **levan**, inulin, and fructooligosaccharide...the EPS and inulin but not for **levan** and FOS. The bifidogenic effect...
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Bello, F.D. / Walter, J. / Hertel, C. / Hammes, W.P. , Systematic and Applied Microbiology, 24 (2), p.232-237, Jan 2001
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- ☐ 4. Investigating the prebiotic and gas-generating effects of selected carbohydrates on the human colonic microflora.
Probert, H M / Gibson, G R , Letters in applied microbiology, 35 (6), p.473-480, Jan 2002
...carbohydrates with reference to their **prebiotic** and gas-generating capacity...various fructo-oligosaccharides, **levan** and maltodextrin). The largest gas producer was **levan**, whilst those showing no significant...least bifidogenic effect was **levan**. CONCLUSIONS: The composition...

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- ☐ 5. [Nutraceutical production with food-grade microorganisms](#)
Hugenholtz, J. / Smid, E.J. , *Current Opinion in Biotechnology*, 13 (5), p.497-507, Oct 2002
...microorganism low-calorie sugars anti-oxidant **prebiotic** Biochemistry Biotechnology Chemical...through specific growth stimulation of **probiotics** (see the article by Rastall and Maitin...health-promoting activity of these so-called **prebiotics** is indirect and fully dependent on...market as a low-calorie sugar, as a **prebiotic** [16] , and as an antiplaque agent by...
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- ☐ 6. [Lactic Acid Bacteria Isolated from Dairy Products Inhibit Genotoxic Effect of 4-Nitroquinoline-1-oxide in SOS-Chromotest](#)
Cenci, G. / Rossi, J. / Trotta, F. / Caldini, G. , *Systematic and Applied Microbiology*, 25 (4), p.483-490, Jan 2002
...dairy products **probiotics** 4-nitroquinoline-1-oxide...Anti-carcinogenicity of **probiotics** and **prebiotics** Curr. Issues Intest...vitro study of **prebiotic** properties of **levan**-type exopolysaccharides...selection criteria for **probiotic** bacteria of human...
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- ☐ 7. [Purification of a novel fructosyltransferase from Lactobacillus reuteri strain 121 and characterization of the levan...](#)
van Hijum^a, S.A.F.T. / Bonting^a, K. / van der Maarel^b, M.J.E.C. / Dijkhuizen^a, L. , *FEMS Microbiology Letters*, 205 (2), p.323-328, Dec 2001
...indicating that it is a **levan** polymer. FTF enzymes...lactobacilli, (c) the **probiotic** properties associated...enzyme responsible for **levan** production in Lb. reuteri...reuteri strain 121 and the **levan** produced and their possible roles in the **probiotic** properties contributed...
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- ☐ 8. [Metabolization of \$\beta\$ -\(2,6\)-linked fructose-oligosaccharides by different bifidobacteria](#)
Marx, S.P. / Winkler, S. / Hartmeier, W. , *FEMS Microbiology Letters*, 182 (1), p.163-169, Jan 2000
...other fructans as **prebiotic** food ingredients. Microbial **levan** is a suitable source...oligosaccharides. **Levan**, a high-molecular...development of new **prebiotic** oligosaccharides...fructose S, sucrose L, **levan** AC, Actilight (R...
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- ☐ 9. [Homopolysaccharides from lactic acid bacteria](#)
Monsan, P. / Bozonnet, S. / Albenne, C. / Joucla, G. / Willemot, R.-M. / Remaud-Simeon, M. , *International Dairy Journal*, 11 (9), p.675-685, Jan 2001
...enzymatic synthesis of fructans (**levan** and inulin) is poorly documented...increasing interest. Fructan **Levan** Inulin Glucan Dextran Mutan...potentially present very interesting **prebiotic** properties for both humans...are of potential interest as **prebiotics**. 3.4 beta -1,3 glucan Lactobacillus...
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- ☐ **10.** [Characterization of a novel endo-levanase and its gene from *Bacillus* sp. L7](#)
Miasnikov, A.N. , *FEMS Microbiology Letters*, 154 (1), p.23-28, Sep 1997
...levanases (EC 3.2.1.65) [4 7] or **levan levan** biosehydrolases (EC 3.2.1.64)
[8...towards oligosaccharide producing **levan** hydrolases in recent years has
been...promoted by the discovery of the **probiotic** properties of fruc-
tooligosaccharides...

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Conti, S. / Magliani, W. / Gerloni, M. / Salati, A. / Dieci, E. / Arseni, S. / Fisicaro, P. / Polonelli, L. , *FEMS Immunology and Medical Microbiology*, 22 (1), p.151-161, Sep 1998
...These vectors take advantage of the counterselectable marker ,vac B. This gene from *Bacillus subtilis* encodes a secreted **levan**- sucrase, which catalyzes hydrolysis of sucrose and synthesis of levans [30]. In *E. coli* and other Gram-negative bacteria...

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- ☐ **12.** [Subject Index](#)
Trends in Biotechnology, 15 (3001), p.ix-xxi, Jan 1997
Subject Index BR - Book Review MR- Meeting Report A Abzymes 386 (MR)
Acetopyruvate, chemical/enzymatic hydrolysis 294 295 *Acinetobacter calcoaceticus*, Baeyer-Villiger monooxygenase (BVMO) 55, 56 Acyl-ACP thioesterase gene, fatty acid changes in engineered plants 443 (MR) Acyl carrier protein, in

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...UK Recent research in the area of **prebiotic** oligosaccharides and synbiotic combinations with **probiotics** is leading towards a more targeted...Recent research in the area of **prebiotic** oligosaccharides and synbiotic combinations with **probiotics** is leading towards a more targeted...exciting prospect is the design of **prebiotics** targeted at specific **probiotics** of proven utility. Such species...

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☐ 2. Fructooligosaccharide and levan producing activity of *Zymomonas mobilis* extracellular levansucrase

Bekers, M. / Laukevics, J. / Upite, D. / Kaminska, E. / Vigants, A. / Viesturs, U. / Pankova, L. / Danilevics, A. , *Process Biochemistry*, 38 (5), p.701-706, Dec 2002

...obtained from sucrose syrup by **levan**-levansucrase sediment as biocatalyst...and can be used as source of **prebiotics**-fructooligosaccharides and soluble fibre-**levan** as cholesterol lowering factor...mobilis Fructooligosaccharides **Levan** Levansucrase Fructan syrup...food products are included **probiotics** which are efficient microbial...

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☐ 3. In vitro study of prebiotic properties of levan-type exopolysaccharides from *Lactobacilli* and non-digestible carbohydrates using denaturing gradient gel electrophoresis.

Bello, F D / Walter, J / Hertel, C / Hammes, W P , *Systematic and applied microbiology*, 24 (2), p.232-237, Jul 2001

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☐ 4. PROCESS FOR THE PREPARATION OF FOODS COMPRISING A PROBIOTIC DELIVERY SYSTEM

**UBBINK, Johan Bernard / SCHAEER-ZAMMARETTI, Prisca / CAVADINI, Christoph (SOCIETE DES PRODUITS NESTLE S.A.), *EUROPEAN PATENT*, Dec 2004
patno:EP1482811**

...significant improvement of the stability of **probiotic** micro-organisms applied in semi-dry...functional ingredients, in particular also **prebiotic** fibres, which in turn may improve...inner matrix (2), which comprises **probiotics** (3). The pellet further comprises...that goes beyond basic nutrition. **Probiotics** (see above) that may have beneficial...may serve as an example. Likewise, **prebiotics**, fiber, vitamins, anti-oxidants...

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☐ 5. [Uronic acid and probiotics](#)

Vriesema, Aldwin / Knol, Jan / Stahl, Bernd (N.V. Nutricia), EUROPEAN PATENT APPLICATION, Oct 2006
patno:EP1714660

...relates to a composition containing **probiotic** and **prebiotic** nutritional components, which can...conducted to find optimal combinations of **probiotic** bacteria and **prebiotic** fiber (synbiotic compositions...provides nutrients of the ingested **probiotic** bacteria. The **prebiotic** oligosaccharides thus specifically...

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☐ 6. [Isolation, growth on prebiotics and probiotic potential of novel bifidobacteria from pigs](#)

Maxwell, F.J. / Duncan, S.H. / Hold, G. / Stewart, C.S. , Anaerobe, 10 (1), p.33-39, Feb 2004

...piglets. Bifidobacterium Pigs **Probiotics Prebiotics** Fructo-oligosaccharides Oxygen...alternatives include the use of **probiotics**. These are mostly lactic...bifidobacteria [3] . Carbohydrate "**prebiotics**", which are thought to enhance...R. Begbie (RRI) and grass **levan** and dahlia-tuber inulin...

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☐ 7. [Probiotic delivery system](#)

Ubbink, Johan Bernard / Schaer-Zammaretti, Prisca / Cavadini, Christoph (Société des Produits Nestlé S.A.), EUROPEAN PATENT APPLICATION, Sep 2003
patno:EP1344458

...significant improvement of the stability of **probiotic** micro-organisms applied in semi-dry...functional ingredients, in particular also **prebiotic** fibres, which in turn may improve...inner matrix (2), which comprises **probiotics** (3). The pellet further comprises...that goes beyond basic nutrition. **Probiotics** (see above) that may have beneficial...may serve as an example. Likewise, **prebiotics**, fiber, vitamins, anti-oxidants...

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Bello, F.D. / Walter, J. / Hertel, C. / Hammes, W.P. , Systematic and Applied Microbiology, 24 (2), p.232-237, Jan 2001

Batch cultures inoculated with human faeces were used to study the prebiotic properties of levan-type exopolysaccharides (EPS) from Lactobacillus sanfranciscensis as well as levan, inulin, and fructooligosaccharide (FOS). Denaturing...

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☐ 9. [Glycosyl hydrolases from Bifidobacterium adolescentis DSM20083 : Their role in the metabolism and synthesis of oligosaccharides.](#)

Broek, L.A.M., van den, dissertation, Jan 2005

...Shortt et al. 2004). Examples are **probiotics** and **prebiotics**, which are used to influence the...positive way (Hammes and Hertel 2002). **PROBIOTIC, PREBIOTIC, AND SYNBIOTIC** The word **probiotic**...or eubiotic is a combination of **probiotic** and **prebiotic** and is defined as 'a mixture of...


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☐ 10. URONIC ACID AND PROBIOTICS

VRIESEMA, Adrianus, Johannes, Maria / KNOL, Jan / STAHL, Bernd (N.V. NUTRICIA), PATENT COOPERATION TREATY APPLICATION, Oct 2006
patno:WO06112714

...relates to a composition containing **probiotic** and **prebiotic** nutritional components, which can...to find optimal combinations of **probiotic** bacteria and **prebiotic** fiber (synbiotic compositions...provides nutrients of the ingested **probiotic** bacteria. The **prebiotic** oligosaccharides thus specifically...

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☐ 11. Lactobacilli in sourdough fermentation

Corsetti, A. / Settanni, L. , Food Research International, 40 (5), p.539-558, Jun 2007
Sourdough technology is widely used; it is employed in bread making and for the production of cakes. Sourdough is characterized by a complex microbial ecosystem, mainly represented by lactic acid bacteria and yeasts, whose fermentation...

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☐ 12. Développement et validation d'un nouveau modèle de fermentation colique in vitro avec cellules immobilisées

Cinquin, Cécile Françoise , Jul 2005

...fed infants, infant formula could be supplemented with **probiotics** or **prebiotics**, food ingredient able to improve human health. This supplementation...fermentation model was used to compared the effect of a well-known **prebiotic** (fructooligosaccharide) with an exopolysaccharide produced...

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☐ 13. PROBIOTIC DELIVERY SYSTEM

UBBINK, Johan, Bernard / SCHAEER-ZAMMARETTI, Prisca / CAVADINI, Christoph (SOCIETE DES PRODUITS NESTLE S.A.), PATENT COOPERATION TREATY APPLICATION, Sep 2003

patno:WO03075676

...significant improvement of the stability of **probiotic** micro-organisms applied in semi...functional ingredients, in particular also **prebiotic** fibres, which in turn may improve...inner matrix (2), which comprises **probiotics** (3). The pellet further comprises...that goes beyond basic nutrition. **Probiotics** (see above) that may have beneficial...may serve as an example. Likewise, **prebiotics**, fiber, vitamins, anti-oxidants...

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☐ 14. Impact of sourdough on the texture of bread




Arendt, E.K. / Ryan, L.A.M. / Dal Bello, F. , Food Microbiology, 24 (2), p.165-174, Apr 2007

...applications of reuteran, dextran and **levan** from lactobacilli has been recently discussed...some of the EPS produced by LAB have **prebiotic** properties (Gibson and Roberfroid, 1995). In particular, the **levan** produced by *L. sanfranciscensis* LTH2590...

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- ☐ **15. Prebiotic compositions comprising fructans**
Mobasser, Aliakbar / Hakes, David / Fitzpatrick, Kelly R., UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Nov 2004
 patno:US20040235788
 ...determine whether a composition contained a **prebiotic** amount of fructan. For example, a **prebiotic** amount for a human could be between about...odorless by resin treatment. The clear, colorless **levan** solution is then spray-dried to give a white...
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- ☐ **16. Investigating the prebiotic and gas-generating effects of selected carbohydrates on the human colonic microflora.**
Probert, H M / Gibson, G R , Letters in applied microbiology, 35 (6), p.473-480, Jan 2002
 ...carbohydrates with reference to their **prebiotic** and gas-generating capacity...various fructo-oligosaccharides, **levan** and maltodextrin). The largest gas producer was **levan**, whilst those showing no significant...least bifidogenic effect was **levan**. CONCLUSIONS: The composition...
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- ☐ **17. Probiotic delivery system**
Ubbink, Johan Bernard / Schaer-Zammaretti, Prisca / Cavadini, Christoph (NESTEC S.A.), UNITED STATES PATENT AND TRADEMARK OFFICE PRE-GRANT PUBLICATION, Jul 2005
 patno:US20050153018
 ...beyond basic nutrition. **Probiotics** (see above) that may have...as an example. Likewise, **prebiotics**, fiber, vitamins, anti-oxidants...or parts of the pellet or **probiotic** delivery system given within...comprise, apart from the **probiotics**, **prebiotic** fibres, for example fructo-oligosaccharides...for example, inulin or **levan**, resistant starches, for...
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- ☐ **18. Lactobacillus reuteri glucosyltransferase**
van Geel-Schutten, Gerritdina Hendrika / Dijkhuizen, Lubbert / Rahaoui, Hakim / Leer, Robert Jan (Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek TNO), EUROPEAN PATENT APPLICATION, Jun 2006
 patno:EP1672074
 ...homopolysaccharides, for instance for **prebiotic** purposes. Several fructo...described above can be used as **prebiotics** and **probiotics** and are also part of the...glucosidic link to be used as **prebiotics**. The invention also concerns...fructan, which can be either a **levan**, inulin or both. More preferably...
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